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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Seishi Ohmori

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EXAMINER

BEMBEN, RICHARD M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/731,240	Applicant(s) OHMORI ET AL.	
	Examiner RICHARD M. BEMBEN	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's amendments to claims 1, 16 and 17 to overcome the 35 USC 112, 2nd, rejections in the previous Office Action (dated 29 February 2008) are accepted.

Therefore, the 35 USC 112, 2nd, rejections are withdrawn.

2. Upon updating the prior art search, the Examiner uncovered US Pub. No. 2006/0092474 and withdraws the indication of allowable subject matter in the previous Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 recites the limitation "the digital camera" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-6, 10, 12, 13, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pub. No. 2006/0092474 filed by Ramsay et al., hereinafter “Ramsay”.

Regarding **claim 1**, Ramsay discloses a method of determining inappropriate exposure amounts in a digital image, the method comprising:

obtaining a brightness histogram related to data of a digital image (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating a standard deviation in brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating an average brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is less than a lower limit brightness value, then determining that the exposure amount in the digital image may be low (refer to Figures 6A-C, e.g. path to D2, -B value); and

if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is greater than an upper limit brightness value, then determining that the exposure amount in the digital image may be high (refer to Figures 6A-C, e.g. path to M, +B value).

Regarding **claim 3**, refer to the rejection of claim 1 and Ramsay further discloses that if the standard deviation in brightness in the histogram is less than a lower limit

deviation value and the average brightness in the histogram is less than an upper limit brightness value and greater than a lower limit brightness value, then determining the exposure amount to be acceptable (refer to Figures 6A-C, e.g. path to C2).

Regarding **claim 4**, refer to the rejection of claim 3 and Ramsay further discloses that if the standard deviation in brightness in the histogram is greater than a lower limit deviation value, then determining the exposure amount to be acceptable (refer to Figures 6A-C, e.g. path to C2).

Regarding **claims 5, 6 and 12**, refer to the rejection of claim 1 and Ramsay does not disclose displaying notification in any situation.

Regarding **claim 10**, refer to the rejection of claim 1 and Ramsay further discloses that if the standard deviation in brightness in the histogram is greater than a lower limit deviation value, then determining the exposure amount to be acceptable (refer to Figures 6A-C, e.g. path to C2).

Regarding **claim 13**, refer to the rejection of claim 1 and Ramsay further discloses that the digital image is taken by a digital camera (refer to [0013]).

Regarding **claim 16**, Ramsay discloses a method of determining inappropriate exposure amounts in a digital image, the method comprising:

obtaining a brightness histogram related to data of a digital image (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating a standard deviation in brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating an average brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is greater than an upper limit brightness value, then determining that the exposure amount in the digital image may be high (refer to Figures 6A-C, e.g. path to M, +B value).

Regarding **claim 17**, Ramsay discloses a method of determining inappropriate exposure amounts in a digital image, the method comprising:

obtaining a brightness histogram related to data of a digital image (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating a standard deviation in brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

calculating an average brightness from the brightness histogram (refer to [0058], [0061], [0065], [0086], [0089]-[0091] and TABLE 1);

if the standard deviation in brightness in the histogram is greater than a lower limit deviation value, then determining the exposure amount to be acceptable, acceptable (refer to Figures 6A-C, e.g. path to C2); and

if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is greater than an upper limit brightness value, then determining that the exposure amount in the digital image may be high (refer to Figures 6A-C, e.g. path to M, +B value).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7, 8, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsay in view of US Pub. No. 2003/0151674 filed by Lin.

Regarding **claim 7**, Ramsay discloses the limitations required by claim 1. Ramsay further discloses that if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is less than a lower limit brightness value that the exposure amount in the digital image may be low (refer to Figures 6A-C, e.g. path to D2, -B value). However, Ramsay does not disclose notification indicating that the exposure amount in the digital image may be low.

Lin discloses a method for assessing the photo quality, including exposure, of an image captured by a digital camera wherein a user is notified with visual warnings via a display when the photo quality is inappropriate (refer to [0029]). It would have been

obvious to a person having ordinary skill in the art at the time of the invention to notify a user of inappropriate image quality as disclosed by Lin while using the method disclosed by Ramsay to determine appropriate exposure level so that a user so that a user is provided feedback that a captured image is inappropriately exposed.

Regarding **claim 8**, Ramsay discloses the limitations required by claim 1. Ramsay further discloses that if the standard deviation in brightness in the histogram is less than a lower limit deviation value and the average brightness in the histogram is greater than an upper limit brightness value that the exposure amount in the digital image may be high (refer to Figures 6A-C, e.g. path to M, +B value). However, Ramsay does not disclose notification indicating that the exposure amount in the digital image may be high.

Lin discloses a method for assessing the photo quality, including exposure, of an image captured by a digital camera wherein a user is notified with visual warnings via a display when the photo quality is inappropriate (refer to [0029]). It would have been obvious to a person having ordinary skill in the art at the time of the invention to notify a user of inappropriate image quality as disclosed by Lin while using the method disclosed by Ramsay to determine appropriate exposure level so that a user so that a user is provided feedback that a captured image is inappropriately exposed.

Regarding **claim 14**, Ramsay discloses the limitations required by claim 1. Ramsay further discloses that the digital image is taken by a digital camera (refer to

[0013]). However, Ramsay does not explicitly disclose that the method is performed by a digital camera.

Lin discloses a method for assessing the photo quality, including exposure, of an image captured by a digital camera wherein the method is performed by the digital camera (refer to [0028] and [0029] and Figure 1). It would have been obvious to a person having ordinary skill in the art at the time of the invention that a digital camera performs the method as disclosed by Lin for the methods disclosed by Ramsay because digital cameras are well known to handle a wide variety of image processes after image capture.

Regarding **claim 15**, (assuming claim 1, 12 or 15 required a digital camera...) Ramsay discloses the limitations required by claim 12. Ramsay further discloses that the digital image is taken by a digital camera (refer to [0013]). However, Ramsay does not explicitly disclose that the digital camera comprises a digital signal processor that performs the method.

Lin discloses a method for assessing the photo quality, including exposure, of an image captured by a digital camera wherein the method is performed by the digital camera (refer to [0028] and [0029] and Figure 1). Lin further discloses that the digital camera comprises a digital signal processor that performs the method (refer to paragraph [0028], “a custom-made built-in ASIC, DSP, or general purpose processor [...]”).

It would have been obvious to a person having ordinary skill in the art at the time of the invention that a digital camera performs the method with a digital signal processor as disclosed by Lin for the methods disclosed by Ramsay because digital cameras are well known to handle a wide variety of image processes after image capture.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/
Supervisory Patent Examiner, Art
Unit 2622

RMB